

Chapter 16 Evolution of Populations**Section Review 16-2****Reviewing Key Concepts**

Short Answer *On the lines provided, answer the following questions.*

1. How might natural selection on single-gene traits lead to evolution?

2. What is directional selection?

3. In stabilizing selection, how does the fitness of individuals at the center of the curve differ from the individuals at either end?

4. How does disruptive selection result in two distinct phenotypes?

5. What occurs during genetic drift?

Completion *On the lines provided, complete the sentences in the following paragraph.*

There are five conditions required to maintain genetic equilibrium. First,

_____ ensures that every member of a population has an equal
6.

chance to pass on its genes. Second, an extremely large population is necessary to minimize genetic drift. Third, the population's gene pool must be kept

_____ from other gene pools. Fourth, genes must not mutate
7.

from one form to another. Finally, so that all genes have an equal probability of survival, there can be no _____.

8.

**Reviewing Key Skills**

9. **Applying Concepts** You examine these two beaks: One is narrow and needlelike. The other looks like a pair of pliers. What type of natural selection could have produced birds with these two extreme types of beaks? Explain your answer.
